



UNITED STATES PATENT AND TRADEMARK OFFICE

cen

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,927	07/12/2005	David C. Loda	EH-10856(05-500)	8474
52237 7590 09/20/2007 BACHMAN & LAPOINTE, P.C. (P&W) 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510-2802			EXAMINER BLOUNT, ÉRIC	
			ART UNIT 2612	PAPER NUMBER
			MAIL DATE 09/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/541,927		LODA, DAVID C.	
	Examiner		Art Unit	
	Eric M. Blount		2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 57-83,85-87,89-97,99 and 100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 57-83,85-87,89-97,99 and 100 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice to Applicant

1. Claims 57-83, 85-87, 89-97, 99 and 100 are pending in the present application. Claims 57, 63, 67, 76-78, 85, 86, 89, 91, 92, and 95 are currently amended. Claims 84, 88, and 98 are cancelled.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 2612

5. Claims 57, 58, 62, 78, 79, 83, 85-87 and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horbal et al [US 6,112,246].

As for **claim 57**, Horbal et al disclose:

- An enclosure (column 1, line 9-16);
- A sensor on the enclosure capable of detecting a condition (temperature sensor, column 3, lines 27-33);
- A server (302) on the enclosure in communication with the sensor and configured to host a webpage pertaining to the enclosure (column 3, lines 27-60); and
- Means for enabling bidirectional communications between the server and a client by way of the Internet (Figure 13, column 3, lines 39-61 and column 9, lines 25-40).

Horbal does not specifically disclose wireless communication, a shipping container, or that the enclosure is for receiving at least one product. With regard to wireless communication, it is noted that the drawings show an Ethernet connection. However, communication using wireless techniques was well known in the art at the time of the invention by the applicant. Further, in embodiments such as a vehicle or consumer product (see abstract) it would have been obvious to the skilled artisan that wireless communication must take place between a server and client because a wired communication link would not be feasible. Because applicant has not mentioned the shipping container in the body of the claim, the limitation is viewed as an intended use that does not add novelty to the invention. Horbal shows in column 1, lines 9-17 and the abstract that the invention is capable of being used in several types of environments, including an automobile. An automobile such as an 18-wheeler is viewed as a shipping container for transport. It would have been obvious to one of ordinary skill in the art at the time

of the invention by the applicant to use the invention of Horbal to monitor shipping containers, as suggested by the abstract and column 1.

As for claim 58, Horbal discloses an environmental sensor (column 3, lines 27-31).

As for claim 62, Horbal discloses that the container/object being tracked may be a plurality of different objects (column 1, lines 9-17). A gas turbine engine enclosure is viewed as an intended use.

As for claim 78, the claim is interpreted and rejected using the same reasoning as claim 57 above. Further, in operation, it is obvious that the invention of Horbal detects a condition with the sensor during transit between an origin and destination, communication takes place between the server and the remote location, and a determination is made as to whether the condition is unacceptable (column 11, lines 22-29 and column 13, lines 40-59). The skilled artisan would have recognized that these steps are obviously present when monitoring an object using the Horbal invention.

Claim 79 is interpreted and rejected using the same reasoning as claim 58 above.

Claim 83 is interpreted and rejected using the same reasoning as claim 62 above.

As for claim 85, either the server or the client is capable of initiating communication (column 13, lines 40-44 and column 3, lines 50-61).

As for claim 86, Horbal discloses the step of supplying the server with information related to at least one product (column 6, lines 63-column 7, line 10), communicating between the server and the client, in response to the information (column 7, lines 3-10). Horbal does not disclose that a determination is made on how to handle the shipping container. However, it would have been obvious to one of ordinary skill in the art at the time of the invention by the

applicant that a client/user at a remote location would obviously make a determination as to whether action needed to be taken. The purpose of monitoring from a remote location is to be able to make a determination about items being monitored.

As for claim 87, the monitoring personnel would obviously determine how to handle the condition based on the provided information.

Claim 89 is interpreted and rejected using the same reasoning as claim 85 above.

6. Claims 59-61, 65, 66, and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horbal et al as applied to the claims above, and further in view of Denekamp et al [US 4,750,197].

As for claims 59-61, Horbal discloses the use of a plurality of sensors (column 8, lines 30-35). Horbal does not specifically disclose the type of sensors used to monitor the shipping container. In an analogous art for remote monitoring of a shipping container, Denekamp discloses that a plurality of sensors including tamper, location, and a camera may be used to monitor at least one condition of a shipping container (Figure 2). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to modify the invention of Horbal to use the well-known sensors taught by Denekamp for monitoring the shipping container taught by Horbal. The use of these sensors would have allowed a remote user to effectively monitor the shipping container and its contents.

As for claims 65-66, Denekamp discloses that a shipping container and its contents are monitored. Figure 1 shows that pluralities of smaller shipping containers (12) are transported inside of the shipping container (10). The conditions of the interior of shipping container (10)

Art Unit: 2612

and thus the other shipping containers (12) are monitored with the sensor(s) (See figures 1 and 2).

Claims 80-82 are interpreted and rejected using the same reasoning as claims 59-61 above.

7. Claims 63, 64, 67-77, 90-97, and 99-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horbal et al as applied to the claims above, and further in view of Lindskog [US 6,400,268 B1].

As for claim 63, Horbal does not disclose a conductive grid for monitoring the surface of the container. In an analogous art for monitoring a container, Lindskog discloses a conductive grid operatively associated with a surface of an enclosure and the sensor is a grid sensor (24, 25) configured to monitor an electrical parameter of the grid (Figures 1 & 5 and column 3, lines 20-34 and column 4, lines 36-59). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to modify the invention of Horbal to include a conductive grid and grid sensor for sensing events in the interior of the shipping container. As discussed above, Horbal discloses that a plurality of sensors are coupled to, and provide information to a server on the container. The conductive assembly taught by Lindskog would have allowed the monitoring system to effectively detect tampering attempts on the shipping container and provide information regarding the tampering attempts to a remote location.

As for claim 64, Lindskog does not specifically disclose a resistance sensor. Instead, Lindskog discloses that a break in circuit continuity is detected. The skilled artisan would have recognized that when a break in circuit continuity is detected, the resistance changes. It would

Art Unit: 2612

have been obvious to one of ordinary skill in the art to measure resistance to determine a break in circuit continuity. Further, the use of resistance sensors and grids were well known in the art at the time of the invention and would have been readily available for use in the invention of Horbal as modified by Lindskog. The continuity circuitry taught by Lindskog and known resistance sensing grids are viewed as interchangeable sensors (sensing devices). Please see the cited art for known resistance sensing devices used to detect tampering.

Claim 67 is interpreted and rejected using the same reasoning as claims 63 and 64 discussed above.

Regarding claim 68, Lindskog discloses a conductive grid associated with an enclosure and a sensor associated with the conductive grid and thereby, the enclosure (see above). Lindskog does not specifically disclose that a power source is connected to the conductive grid to energize the conductive grid. However, it would have been obvious to one of ordinary skill in the art that a power source must be present for energizing the conductive grid. Without a power source the grid would function, as a mesh covering that would not be useful in determining if the container has been tampered with. Further, the skilled artisan would have recognized the need for the sensor to determine changes in the conductive grid that were indicative of a tampering event.

As for claims 69 and 70, it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant mount the conductive grid in an appropriate manner. Several means for mounting sensors and or devices to a solid structure were well known in the art at the time of the invention by the applicant. Applicant has not shown why any particular means for mounting is better than another. See column 3, lines 19-61.

Regarding claims 71 and 72, Lindskog discloses that a part of the conductive grid may consist of an insulating layer and a paint layer (column 3, lines 11-34).

As for claim 73, neither Horbal nor Lindskog disclose that the shipping container contains a refrigeration unit. However, the skilled artisan would have recognized that refrigeration units are common in shipping containers for transporting goods such as meat and produce. It would have been obvious for the shipping container to include a refrigeration unit if the cargo being transported warranted it.

As for claim 74, the claim is interpreted and rejected using the same reasoning as claims 64 and 68 above.

Regarding claim 75, Horbal discloses that a plurality of sensors may be used for monitoring. Monitoring the conditions of the interior of the shipping container is viewed as monitoring a parameter associated with a product. For example, if the temperature inside a container is excessive, it is reasonable to say the temperatures of the products inside the container are also excessive.

As for claim 76, Horbal discloses the use of a plurality of sensors. It would have been obvious to one of ordinary skill in the art to use any known sensing and communication techniques. The use of different sensors and the way they are to communicate is viewed as an engineering preference that does not add novelty to the invention.

As for claim 77, Horbal discloses that a remote computing device (end-user pc) is adapted to wirelessly communicate with the server by way of the Internet, and the server is adapted to generate a wireless system about the enclosure (see entire Horbal reference and the discussion of claim 57 above).

As for claim 90, the claim is interpreted and rejected using the same reasoning as claim 63 above.

As for claim 91, the claim is interpreted and rejected using the same reasoning as claim 64 above.

As for claim 92, the claim is interpreted and rejected using the same reasoning as claims 63 and 68 above.

As for claim 93, the claim is interpreted and rejected using the same reasoning as claims 63 and 64 above.

Regarding claims 94 and 96, the claims are interpreted and rejected using the same reasoning as claims 69 and 70 above.

As for claim 95, the claim is interpreted and rejected using the same reasoning as claim 71 above.

As for claim 97, the claim is interpreted and rejected using the same reasoning as claim 57 above.

As for claim 99, Lindskog discloses that the enclosure has been pierced or tampered with when the sensed condition changes. This is viewed as an intrusion.

As for claim 100 both references disclose actuating an alarm when certain conditions are met. It would have been obvious to the skilled artisan to trigger an alarm upon detecting an intrusion because it would allow the monitoring personnel to determine what action was necessary for protecting the monitored enclosure and/or apprehending the intruder.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Blount whose telephone number is (571) 272-2973. The examiner can normally be reached on Monday-Thursday 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric M. Blount
Examiner
Art Unit 2612


BENJAMIN C. LEE
PRIMARY EXAMINER